

ANAMORPHIC ILLUMINATION OF MICRO-ELECTROMECHANICAL  
DISPLAY DEVICES EMPLOYED IN MULTIMEDIA PROJECTORS

## ABSTRACT OF THE DISCLOSURE

Micro-electromechanical display device ("MDD")-based multimedia projectors (90, 120) of this invention employ an arc lamp (32), a color modulator (42), and anamorphic illumination systems (94, 121) for optimally illuminating a MDD (50, 76) to improve projected image brightness. MDDs employ off-axis illumination wherein incident and reflected light bundles are angularly separated about a hinge axis (78, 110) and the MDD is illuminated by the anamorphic illumination systems of this invention having a slow  $f/\#$  parallel to the hinge axis and a faster  $f/\#$  perpendicular to the hinge axis. The resulting anamorphic light bundles (86, 88, 112, 114) illuminate and reflect more light into and off the MDD and through a fast  $f/\#$  projection lens.